

Chemical Waste Disposal Request Guidance

Los Alamos National Laboratory

Laboratory Implementation Guidance Document LIG404-00-04.1

Issue Date: June 15, 2001 (Revised April 30, 2002)

nonmandatory Document

1. INTRODUCTION

1.1 Overview

Los Alamos National Laboratory (the Laboratory) requires the waste management coordinator (WMC) to complete the Chemical Waste Disposal Request (CWDR) for the purpose of requesting waste shipments for treatment, storage or disposal of medical, chemical, solid, hazardous, low-level or mixed low-level waste (LLW or MLLW). See [LIR 404-00-02](#).

1.2 In This Document

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2.0 PURPOSE

The purpose of this document is to provide WMCs with guidance in completing the CWDR.

3.0 SCOPE & APPLICABILITY

The guidance is recommended for all WMC's (including contractors and subcontractors) at the Laboratory.

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4.0 ACRONYMS AND DEFINITIONS

4.1

Acronyms

CWDR	Chemical Waste Disposal Request
DOT	Department of Transportation
FWO-SWO	Facility & Waste Operations—Solid Waste Operations
LLW	low-level waste
MLLW	mixed low-level waste
TSDF	treatment, storage, and disposal facility
WPF	Waste Profile Form

4.2

Definitions

Compactible Waste: Solid waste that consists of trash-type material, such as paper, plastic, rubber, small items of glassware (up to 1 gallon) or pipe conduit (up to 12-in. long), and small chips of wood or sheet metal.

Less-than 90 day (<90 day) Accumulation Area: A designated space for accumulating hazardous or mixed waste in containers or tanks; the waste may not remain in the accumulation area longer than 90 days {40 CFR §262.34}.

Non-Compactible Waste: Large or bulky waste or other obviously non-compactible waste such as heavy pipe, angle iron, equipment, lumber, building rubble and soil. Waste with tritium in concentrations greater than 20 mCi/m³ is also considered non-compactible.

Rad Staging (<90 days): The accumulation of LLW to facilitate transportation, treatment, and/or disposal.

Rad Storage (<1 yr): The holding of radioactive waste for a temporary period, at the end of which the waste is treated, disposed of, or stored elsewhere {DOE M 435.1}.

Satellite Accumulation Area: A designated space for accumulating hazardous and mixed waste where the volume of hazardous waste may not exceed 55 gallons or the volume of acutely hazardous waste may not exceed one quart {40 CFR § 262.34}.

Shipping Container Information: Information related specifically to the type, volume and weight of a shipping container (does not include waste).

Universal Waste: Certain of the following types of hazardous waste are subject to the universal waste requirements of 40 CFR Part 273; batteries, pesticides, lamps and mercury thermostats.

Waste Information: Information related specifically to the volume and weight of waste.

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5.0 PRECAUTIONS AND LIMITATIONS

This document is limited to guidance for the completion of the CWDR.

NOTE: For specific instances where a CWDR is required see [LIR 404-00-02](#).

This guidance document does not address all conceivable situations. See the [waste management LIRs](#) and [PLAN-WASTEMGMT-002](#), “LANL Waste Acceptance Criteria” for technical requirements concerning waste form, content, packaging, or handling. Contact the Solid Waste Operations Group (FWO-SWO) for any special situations not covered in this guidance.

Any suggestions involving changes to this guidance or questions concerning interpretation should also be referred to FWO-SWO, 5-6158.

6.0 GUIDANCE

6.1 General Guidance

[LIR 404-00-02](#) requires CWDRs or other treatment, storage, and disposal facility- (TSDF-) specific forms be completed for requesting transfers of waste from the generator site to a TSDF except when the waste goes through a pipeline to the Radioactive Liquid Waste Treatment Facility (RLWTF) or Sanitary Waste System (SWS). However, a CWDR is required when transporting liquid waste to the RLWTF via a transportation vehicle. Direct off-site shipments should be coordinated through the FWO-SWO.

When completing the CWDR, the WMC should follow the steps listed below to prevent any CWDR processing delays.

- Ensure that an active WPF exists for the waste.
- Provide valid cost accounts.
- Complete the form for the waste type.
- Complete a new CWDR for each storage location (TA, Building, Room).
- Complete the form in blue or black ink.
- Do not use white-out!
- Make changes by drawing a single line through the incorrect entry and inserting the correct entry in the nearest open space. Initial and date all changes.
- Be specific.
- Do not alter the form.

NOTE: Spreadsheets may be used if item information is presented in the same order as shown on the form.

- Use duplicate forms as continuation sheets.

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- Retain a copy of the CWDR.

NOTE: It is recommended that the copy be retained for three (3) years.

- Complete a new CWDR for each shipment.
- Complete a CWDR for each waste type: MLLW, LLW, or chemical/hazardous waste.
- Submit the completed, original CWDR to FWO-SWO, MS J595.

6.2 Specific Guidance for Completing the CWDR

Each block or column on the CWDR is named or identified in the left-hand column below, and the recommended action is described in the right-hand column.

Block or Column Name	Recommended Action
Account Information	Enter a valid cost center, program code, cost account and work package.
Waste Management Contact Information	Enter the Z Number, name, and phone number of the shipping contact. This is who will be contacted if additional information is needed and when the waste is to be picked up for shipment.
Date	Fill in the date the form was completed. Enter the date in the form MM/DD/YY.
Waste Location and Storage Type	Enter the: <ul style="list-style-type: none">• Technical Area• Building Number• Room Number Check the box marked Security Area if applicable. Check the box marked Direct Off-site Shipment if applicable
NOTE: Generators accumulate or store waste in approved waste accumulation or storage area. Indicate the location from which the waste will be picked up. Check as many boxes as apply.	

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Block or Column Name	Recommended Action	
Waste Location and Storage Type (cont)	Summary of Storage Type Identification Steps	
	If you check the box:	Then write the:
	<90 Day Accumulation Area	Accumulation start date.
	Universal Waste Area	Accumulation start date.
	Satellite Accumulation Area	Approximate volume of the waste.
	TSDF	Date storage began.
	PCB Waste	Date taken out of service.
	NM Special Waste	Accumulation start date.
	Rad Staging (< 90 Days)	Date staging began.
	Rad Storage (<1 year)	Date storage began.
	Rad Dumpster No.	Number of the rad dumpster.
	Other	Describe in additional information.
	<p>NOTE: The accumulation start date starts when the container first receives waste or when the container is first received in the accumulation area. See LIR 404-00-03.</p> <p>NOTE: If there is more than one start date on one CWDR, indicate on the line in the description box the different start dates for the items.</p>	
	<90 Days Accumulation Area	Check this box for <90 days accumulation area and fill in the accumulation start date in the form MM/DD/YY. See LIR 404-00-03 .
Universal Waste Area	Check this box for universal waste area and fill in the accumulation start date in the form of MM/DD/YY. See LIR 404-00-03 .	
TSDF	Check this box for TSDF area and fill in the storage date in the form of MM/DD/YY. See LIR 404-00-03 .	
Satellite Accumulation Area	Check this box for satellite accumulation area and fill in the volume amount and units of hazardous waste in the accumulation area. See LIR 404-00-03 .	

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Block or Column Name	Recommended Action
PCB Waste	Check this box for PCB waste and enter the date in the form of MM/DD/YY the PCBs were taken out of service. Include the concentration of PCBs and all PCB identification number on the line in the description box. See LIR 404-00-06 .
NM Special Waste	Check this box for NM special waste and fill in the date in the form of MM/DD/YY the waste generated. See LIR 404-00-04 .
NOTE: If the waste stream is MLLW, identify both the rad staging or storage area and the <90-day-accumulation area, the satellite accumulation area, or permitted RCRA storage area (TSDF).	
Rad Staging Area (< 90 days)	Check this box for LLW or MLLW and enter the date in the form of MM/DD/YY the staging began. See LIR 404-00-05 .
Rad Storage Area (< 1 year)	Check this box for low-level radioactive waste and fill in the date in the form of MM/DD/YY the storage began. See LIR 404-00-05 .
Rad Dumpster No.	Check this box for LLW dumpster and enter the dumpster number.
Other (describe in description):	Check this box if the waste does not belong in one of the other waste storage types, and describe it in the description section.
Item ID	Enter the item ID numbers for each item. NOTES: The item ID numbers are unique numbers provided by FWO-SWO to the WMC. For bulk loads with multiple WPFs use one item ID number for each WPF.
Waste Profile Number	Enter the active Waste Profile Number. NOTE: Individual items may have a common waste profile number.

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Block or Column Name	Recommended Action																																
Shipping Container Information	<p>Complete this section with the information listed below.</p> <ul style="list-style-type: none"> Type refers to the container type (see below). <p>NOTE: These refer to the container the waste is currently in for pick-up and may include DOT containers.</p> <ul style="list-style-type: none"> Volume and Unit refers to the volume of the empty containers and the unit used to measure the volume. Tare Weight and Unit refers to the weight of the empty containers and the unit used to measure the weight. <table border="1"> <thead> <tr> <th>Container Types</th><th>Units for Volume</th></tr> </thead> <tbody> <tr><td>01-Bulk (Unpackaged)</td><td>G-Gallon</td></tr> <tr><td>02-Metal Drum</td><td>L-Liters</td></tr> <tr><td>03-Fiber or Plastic Drum</td><td>F-Cubic Feet</td></tr> <tr><td>04-Plastic Bottle or Container</td><td>M-Cubic Meters</td></tr> <tr><td>05-Glass Bottle or Container</td><td>O-Fluid Ounce</td></tr> <tr><td>06-Plastic Bag</td><td>P-Pint</td></tr> <tr><td>07-Fiber or Plastic Box</td><td>Q-Quart</td></tr> <tr><td>08-Wooden Box</td><td></td></tr> <tr><td>09-Metal Box</td><td></td></tr> <tr><td>10-Portable Tank</td><td></td></tr> <tr><td>11-Cylinder</td><td></td></tr> <tr><td>12-Shield Cask</td><td></td></tr> <tr><td>13-Other (specify in description)</td><td></td></tr> <tr><td>14-Compactor Box</td><td></td></tr> <tr><td>15-Aerosol Can</td><td></td></tr> </tbody> </table>	Container Types	Units for Volume	01-Bulk (Unpackaged)	G-Gallon	02-Metal Drum	L-Liters	03-Fiber or Plastic Drum	F-Cubic Feet	04-Plastic Bottle or Container	M-Cubic Meters	05-Glass Bottle or Container	O-Fluid Ounce	06-Plastic Bag	P-Pint	07-Fiber or Plastic Box	Q-Quart	08-Wooden Box		09-Metal Box		10-Portable Tank		11-Cylinder		12-Shield Cask		13-Other (specify in description)		14-Compactor Box		15-Aerosol Can	
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13-Other (specify in description)																																	
14-Compactor Box																																	
15-Aerosol Can																																	
Waste Information	<p>Complete this section with the information listed below.</p> <ul style="list-style-type: none"> Volume and Unit is for the volume of waste and the unit used to measure the volume. Weight and Unit is for the weight of the waste and the unit used to measure the weight. 																																

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Block or Column Name	Recommended Action	
	Units for Volume	Units for Weight
	G gallon L liters F cubic feet M cubic meters O fluid ounce P pint Q quart	P pound K kilograms G grams O ounce T tons
Physical State for New and Unused Chemicals	Enter the physical form for new and used chemicals (non-radioactive) in the box provided. Attach the MSDS that matches the physical state and provide the item id number on the MSDS copy.	
Physical State for New and Unused Chemicals (cont)	If the physical form of the waste is:	Use the code:
	Solid Liquid Gas Powder	S L G P
Description	Provide a complete and specific description of the waste. This description should be at least or more specific than the description on the WPF. Use as many lines as needed.	
	Additional Description Guidance	
	If	Then
	The item is PCB waste.	Enter the following on the same description line for the item. Concentration of PCBs All PCB Identification Numbers.
	The container type is No. 11 for cylinders.	Enter the DOT approval cylinder number on the same description line for the item.
If this is not LLW or MLLW, then proceed to the Certification Statement; otherwise complete Page 2 of the CWDR.		
Item ID	Insert the associated item ID number from Page 1 in the Item ID column on Page 2	

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Block or Column Name	Recommended Action
S/V/B	Enter whether the contamination present is Surface (S) contamination, Volume (V) contamination, or Both (B).
C/NC	Use the appropriate code to identify whether the waste is compactible (C) or non-compactible (NC).
Health Physics Container/Package Information	<p>These measurements should be taken by your Radiological Control Technician (RCT).</p> <ul style="list-style-type: none"> • Container Surface. Enter the dose rate in mrem/hr from the container surface. • 1 Meter Dose. Enter the total dose rate at one meter in mrem/hr. • Package Surface Contamination refers to the type of contamination, either Alpha or Beta-Gamma, at the surface of the package. Enter the amount of alpha or beta-gamma contamination present on the exterior of the waste package in dpm/100 cm².
Radionuclide	<p>Enter the radionuclides present in the waste using as many lines as necessary. Show each active isotope's atomic symbol and mass number; i.e., write uranium 238 as U-238.</p> <p>NOTE: Gross Alpha, Beta or Gamma are unacceptable entries for nuclides</p>
Amount	Enter the amount of activity for each radionuclide present in the waste. Use scientific notation; e.g., show 1.62×10^{-4} as 1.62E - 04 (circle the + or - sign as appropriate).
Uncertainty	Enter the uncertainty using scientific notation (circle + or - , as appropriate) associated with each radionuclide present.
Unit	<p>Enter C for Curies, M for grams, or L for curies/liter as shown below.</p> <p>NOTE: The unit "L," in the table below, cannot be used to describe solid LLW or MLLW.</p>

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Block or Column Name	Recommended Action	
	If you measured the activity in...	Use the code...
	curies	C
	grams	M
	curies/liter	L
Certification Statement	When the form is complete, read the Certification Statement on Page 1, then provide your printed name, signature, Z number and the date on which the form was signed.	

The following are examples of documents that should be attached to the CWDR if they support the information provided on the CWDR.

- Analytical results
- Waste Exception form
- MSDS for new and unused chemicals.
- Photographs
- Waste with NO PATH FORWARD document
- Discard Authorization

After completing the CWDR, the original form should be sent to FWO–SWO, MS J595.

7.0 DOCUMENTATION

The original CWDR is considered a record and should be maintained in accordance with LIRs:

- [LIR 404-00-02](#), “General Waste Management Requirements” and
 - [LIR 404-00-03](#), “Hazardous and Mixed Waste Requirements.”
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8.0 REFERENCES

- 8.1 Document Ownership** The Waste Management Policy and Procedure Council ([WMPPC](#)) is the Office of Institutional Coordination (OIC) for this document.
-
- 8.2 Referrals** Radioactive Liquid Waste Treatment Facility (FWO-WFM), 7-4301
Solid Waste Operations (FWO-SWO), 5-6158
Solid Waste Regulatory Compliance (RRES-SWRC), 5-0677
-
- 8.3 Documents** [LIR 402-700-01](#), "Contamination Control." Los Alamos National Laboratory
[LIR 404-00-02](#), "General Waste Management Requirements." Los Alamos National Laboratory.
[LIR 404-00-03](#), "Hazardous and Mixed Waste Requirements." Los Alamos National Laboratory.
[LIR 404-00-04](#), "Managing Solid Waste." Los Alamos National Laboratory.
[LIR 404-00-05](#), "Managing Radioactive Waste." Los Alamos National Laboratory.
[LIR 404-00-06](#), "Managing Polychlorinated Biphenyls." Los Alamos National Laboratory.
[PLAN-WASTEMGMT-002](#), "LANL Waste Acceptance Criteria." Los Alamos National Laboratory.
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9.0 ATTACHMENTS AND APPENDICES

Attachment A. Example of CWDR (FMU64-F286)

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Waste Services Use Only

National Laboratory

This form is used to request disposal of chemical and low-level radioactive wastes. Mail completed form to Waste Services at **MS J595**.

Account Information				Z Number			Name (Print)						Telephone			Date	
Waste Pick-up Location and Storage Type:							TA		Building		Room		<input type="checkbox"/> Security Area		<input type="checkbox"/> Direct Off-Site Shipment		
<input type="checkbox"/> < 90 Day Accumulation Area <input type="checkbox"/> Universal Waste Area <input type="checkbox"/> TSDF (Start Date _____)				<input type="checkbox"/> Satellite Accumulation Area (Approx. vol._____) <input type="checkbox"/> PCB Waste (Start Date:_____) <input type="checkbox"/> NM Special Waste (<90 days) (Start Date:_____)				<input type="checkbox"/> Rad Staging Area (<90 days) <input type="checkbox"/> Rad Storage Area (<1 year) (Start Date: _____)				<input type="checkbox"/> Rad Dumpster (No:_____) <input type="checkbox"/> Other (describe in description)					
Item Id	Waste Profile Number	Shipping Container Information					Waste Information				*S=Solid L=Liquid G=Gas P=Powder	Description					
		Type	Volume	Unit	Tare Weight	Unit	Volume	Unit	Weight	Unit							
Container Types										Units for Volume			Units for Weight				
01-Bulk (Unpackaged)		04-Plastic Bottle or Container		07-Fiber or Plastic Box		10-Portable Tank		13-Other (specify in description)		G-Gallon		M-Cubic Meters		P-Pound O-Ounce			
02-Metal Drum		05-Glass Bottle or Container		08-Wooden Box		11-Cylinder		14-Compactor Box		L-Liters		O-Fluid Ounce		K-Kilograms T-Tons			
03-Fiber or Plastic Drum		06-Plastic Bag		09-Metal Box		12-Shield Cask		15-Aerosol Can		F-Cubic Feet		P-Pint		G-Grams			
										Q-Quart							
CERTIFICATION STATEMENT: To the best of my knowledge, I certify that the information on this form is correct. I understand that this information will be made available to regulatory agencies and that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.																	
Printed Name						Signature						Z Number			Date		

*For new and unused chemicals

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Low- Level Radiological Information

Item ID	S/V/B ¹	C/NC ²	Health Physics Container/Package Information				Radionuclide	Amount			Unit	Uncertainty					
			Container Surface (mrem/hr)	1 Meter Dose (mrem/hr)	Package Surface Contamination (DPM/100 sq. cm)												
					Alpha	Beta-Gamma											
									E	+	-			E	+	-	
										E	+	-			E	+	-
										E	+	-			E	+	-
										E	+	-			E	+	-
										E	+	-			E	+	-
										E	+	-			E	+	-
										E	+	-			E	+	-
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										E	+	-			E	+	-
										E	+	-			E	+	-
										E	+	-			E	+	-
										E	+	-			E	+	-
										E	+	-			E	+	-
										E	+	-			E	+	-

¹ S = Surface, V = Volume, B = Both Surface and Volume

² C = Compactible, NC = Non-compactible

Units for Activity

C – curies

M – grams

L - curies/liter